



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/620,119	07/20/2000	Michiko Ambe	FUJR 17.394	2706
26304	7590	04/29/2004	EXAMINER	
KATTEN MUCHIN ZAVIS ROSENMAN			MOORE, IAN N	
575 MADISON AVENUE			ART UNIT	
NEW YORK, NY 10022-2585			PAPER NUMBER	

2661
DATE MAILED: 04/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/620,119

Applicant(s)

AMBE, MICHIKO

Examiner

Ian N Moore

Art Unit

2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-7,9 and 10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,9 and 10 is/are rejected.
- 7) ☐ Claim(s) 5-7 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see page 7 and 8, filed March 24, 2004, with respect to the rejection(s) of claim(s) 1, 2, 4-7, 9, 10 under 35 USC 102 and 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of new found prior arts.

Claim Objections

2. Claim 4 is objected to because of the following informalities: **claim 4 depends on cancelled claim 3**. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 9, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanimoto (U.S. Patent 6,075,776) in view of McGarvey (U.S. 5,777,989).

Regarding Claim 1, Tanimoto '776 discloses a network system comprising:

(a) a plurality of terminals which send and receive packets (see FIG. 1, Terminal TE 101-102), each terminal belonging to one of a plurality of logical groups (see FIG. 1, each TE belongs at a Home Network HNW 200 of the networks 200, 502, 501 (i.e. VLANs));

Art Unit: 2661

(b) a plurality of switches (see FIG. 1, Routers 400, RAS 301, and RAC 601) which interconnect said plurality of terminals by receiving and forwarding the packets originating from said terminals (see FIG. 1, each router interconnect TEs and receive/forward the packets), each of said switches (see FIG. 10, Routers 400, RAS 301, and RAC 601), each comprising:

first storage means (see FIG. 4, Table 70) for storing information that is used to identify logical group membership of the source terminal of a received packet (see FIG. 5A, step see col. 4, line 33-37, 45-48; note that each access client router stores a table of routing data addresses which is used to identify the logical network of the received packet's terminal),

query means for sending a query to request information about the logical group membership (see FIG. 5A, step S3, sending a request to the server IMS 700), when said first storage means has failed to provide sufficient information to identify the logical group membership of a particular source terminal (see col. 4, line 50-57, see col. 5, lines 12-19, 28-40; note that upon receiving the first packet, RAC 601 sends a request to server IMS 700 when no entries is found in home address table 70),

updating means (see FIG. 5A, S9) for updating the information stored in said first storage means according to a response to the query sent by said query means (see col. 4, line 59-62, see col. 5, lines 57-64; note that the access client router updates the home address table based upon the response from the IMS 700),

(c) a server (see FIG. 1, IMS 700) which control said plurality of switches comprising:

second storage means for storing a list of identifiers of the terminals (see FIG. 2 and 3, Left columns of Table 50 and 60 stores the MAC address of the terminals), in association with the logical groups to which the terminals belong (see col. 4, line 64 to col. 5, lines 11; note that MAC addresses of the terminals are associated/linked with each router in the VLAN systems/networks to which the terminals belongs),

searching means for searching said second storage means (see FIG. 5A, step S4) in response to the query from said requesting switch (see col. 5, line 39-44; note that in response to the request from the access client router, the IMS performs address resolution and authentication by searching/confirming the stored address management tables),

transmission means (see FIG. 5A, S5 and s9) for receiving a search result from said searching means and sending the search result to said requesting switch (see col. 5, line 50-55; note that once TE has been searched and authenticated, the packet is returned back to the requesting access client router),

supposition means for suggesting a specific logical group (see FIG. 5A, S5 and S9) to which said source terminal in question is supposed to belong, based on the identifier of the source terminal (see FIG. 2 and 3, tables 50 and 60; see col. 5, lines 42-45, note that IMS performs the search based upon the MAC address of the requested terminal (i.e. stored tables) and transmits the suggested/proposed/advised the new/updated access client router address and its associated VLAN.)

Tanimoto '776 does not explicitly disclose suggesting when said searching means has failed to provide the requested information.

However, the above-mentioned claimed limitations are taught by McGarvey'989. In particular, McGarvey'989 teaches a server (see FIG. 2, DNS 116) suggesting a specific logical group (see FIG. 2, a current network location of host 2 (or) local name of the host 2) to which said source terminal in question (see FIG. 2, Host 2) is supposed to belong when searching means has failed to provide the requested information (see FIG. 2, steps 205,210,215,225, 240; see col. 4, line 30-50; note that when the DNS determines that the host 2 node is not in the master list (i.e. searching means fails to provide request information), it searches the local name files and suggests/proposes/advises a local name and current location of host 2).

In view of this, having the system of Tanimoto'776 and then given the teaching of McGarvey'989, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Tanimoto'776, for the purpose of providing a local name table/file to search if DNS fails the search for the first time, since McGarvey'989 states in col. 1, lines 13-16, 39-49, col. 4, lines 25-27 that such modification would enable the address/name resolution so that TCP/IP connection can be established successfully. The motivation being that by searching in the local file after the searching in master file/list/database, it can enhance searching mechanism to resolve the unknown address in order to established the successful connection.

Regarding Claims 9 and 10, Tanimoto'776 discloses a computer-readable medium, which stores a computer program (see FIG. C, note this figure is the method figures) being designed to run on a computer in order to cause the computer to function as a server (see

FIG. 1, IMS 700) for use in a network system, which controls a plurality of switches (Routers 400, RAS 301, and RAC 601) that interconnect a plurality of terminals (see FIG. 1, Terminal TE 101-102) by receiving and forwarding packets originating from the terminals, the server comprising:

second storage means for storing a list of identifiers of the terminals (see FIG. 2 and 3, Left columns of Table 50 and 60 stores the MAC address of the terminals), in association with the logical groups to which the terminals belong (see col. 4, line 64 to col. 5, lines 11; note that MAC addresses of the terminals are associated/linked with each router in the VLAN systems/networks to which the terminals belongs),

searching means for searching said second storage means (see FIG. 5A, step S4) in response to the query from said requesting switch (see col. 5, line 39-44; note that in response to the request from the access client router, the IMS performs address resolution and authentication by searching/confirming the stored address management tables),

transmission means (see FIG. 5A, S5 and s9) for receiving a search result from said searching means and sending the search result to said requesting switch (see col. 5, line 50-55; note that once TE has been searched and authenticated, the packet is returned back to the requesting access client router),

supposition means for suggesting a specific logical group (see FIG. 5A, S5 and S9) to which said source terminal in question is supposed to belong, based on the identifier of the source terminal (see FIG. 2 and 3, tables 50 and 60; see col. 5, lines 42-45, note that IMS performs the search based upon the MAC address of the requested terminal (i.e. stored

Art Unit: 2661

tables) and transmits the suggested/proposed/advised the new/updated access client router address and its associated VLAN.)

Tanimoto '776 does not explicitly disclose suggesting when said searching means has failed to provide the requested information.

However, the above-mentioned claimed limitations are taught by McGarvey'989. In particular, McGarvey'989 teaches a server (see FIG. 2, DNS 116) suggesting a specific logical group (see FIG. 2, a current network location of host 2 (or) local name of the host 2) to which said source terminal in question (see FIG. 2, Host 2) is supposed to belong when searching means has failed to provide the requested information (see FIG. 2, steps 205,210,215,225, 240; see col. 4, line 30-50; note that when the DNS determines that the host 2 node is not in the list (i.e. searching means fails to provide request information), it searches the local name files and suggests/proposes/advises a local name and current location of host 2).

In view of this, having the system of Tanimoto'776 and then given the teaching of McGarvey'989, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Tanimoto'776, for the purpose of providing a local name table/file to search if DNS fails the search for the first time, since McGarvey'989 states in col. 1, lines 13-16, 39-49, col. 4, lines 25-27 that such modification would enable the address/name resolution so that TCP/IP connection can be established successfully. The motivation being that by searching in the local file after the searching in master file/list/database, it can enhance searching mechanism to resolve the unknown address in order to established the successful connection.

4. Claims 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanimoto'776 and McGarvey'989, as applied to claim 1 above, and further in view of Hart '003 (U.S. Patent 5,752,003).

Regarding claim 2, Tanimoto '776 discloses transmission means sends the search result to said requesting switch as described above in claim 1.

Tanimoto '776 does not explicitly disclose sending the search result to other switches (see Hart'003 see FIG. 2, VLAN/NET server 106 and Edge devices/switches 105,107,108; col. 3, line 30-40, see col. 4, lines 27-40; note that upon translating/mapping/searching in response to multi-destination packet, the network server transmits the plurality of messages to the edge devices/switches in the network).

This limitation is taught by Hart'003. In view of this, having the combined system of Tanimoto'776 and McGarvey'989, and then given the teaching of Hart'003, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Tanimoto'776 and McGarvey'989, for the purpose of updating translation/search information to all edge device/switches since Hart'003 states in col. 4, line 30-40 such modification would provide the updated information/results about the authorized nodes which are accessible to the network. The motivation being that by sending updated information to the edge devices/switches, it can enhance the security by only allowing the authorized node to access the network.

Regarding claim 4, the combined system of Tanimoto '776 and McGarvey'989 discloses the server comprises logical group producing means for producing a logical group when supposition means suggest any specific logical group for said source terminal in question as described above in Claim 1. Moreover, McGarvey'989 teaches the scenario when the supposition means has failed to suggest any specific logical group for said source terminal in question (see McGarvey'989 FIG. 2, step 230 and 235).

Neither Tanimoto '776 nor McGarvey'989 explicitly discloses producing a new logical group (see Hart'003 FIG. 2, VLAN/Net Domain A, B, or C) for said source terminal in question (see Hart '003 see FIG. 4, step 257, 260; col. 3, line 58-66, note that the network server adds the new node to the appropriate virtual net domain when the searching/suggestion fail (i.e. a node is not on any of the list)).

This limitation is taught by Hart'003. In view of this, having the combined system of Tanimoto'776 and McGarvey'989, and then given the teaching of Hart'003, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Tanimoto'776 and McGarvey'989, for the purpose of adding a new node to the appropriate virtual net domain when the searching fails since Hart'003 states in col. 3, line 10-14 such modification would provide managing network traffic, which is achieved based on automatically setting up a plurality of VNETs within a single large virtual LAN. The motivation being that by automatic setting/configuration/adding the new node on the list, it can enhance the network administrator's tasks.

Allowable Subject Matter

5. Claims 5-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ian N Moore whose telephone number is 703-605-1531. The examiner can normally be reached on M-F: 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ken Vanderpuye can be reached on 703-308-7828. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

INM
4/23/04



KENNETH VANDERPUYE
PRIMARY EXAMINER